

Role of agriculture in balancing economy of India during COVID-19 pandemic

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In present time, COVID-19 the deadly virus is creating havoc all over the world. Loss of manpower, strength, income sources etc. can be seen everywhere. Out of these some are due to direct effects of this pandemic but others are arisen in order to preventive measure taken by govt. like Lockdowns. Due to all this a very great decline is observed in economy of India. Only one sector which help in balancing the status is agriculture sector because it occupies approximate 43 percent of geographical area of India. Agriculture plays important role in building indian economy because it creates 18 percent of GDP in alone. Almost 2/3rd of working population depends on it and it creates 52 percent jobs available in India. Different secondary and tertiary working industries like textiles, sugar, vanaspati, edible oil plantation industries, agro-based cottage industries are only functional on raw material directly received from agriculture sector. Apart from this almost 70 percent of India's exports are originated from agriculture sector.

Keywords: Agriculture sector, GDP, Pandemic

Introduction

Agriculture is a main sector of India. We got proofs of Agriculture initiation in India from **Indus Valley Civilization**(7) and even much before that. India occupies second global rank in farm yields. In the year 2018, agriculture provides employment to more than half of the Indian population and contributed 18% to country's economic wealth[1]. Being holding seventh position in the world according to area, India covers a total land of 3,287,590 km² (1,269,219 square miles) out of which 155.22 million hectares are under agriculture use. India has a very vast surface variation ranging from mountains to plains, deserts, forest, valleys and coast line. India is a diverse country with huge diversities in edaphic factors,

rainfall, thermal conditions and cropping methods. About 3 trillion m³ of rainwater is received from different sources like river, canals, dams and a major part i.e. 210 billion m³ as ground water along with a good amount of sunlight. Thus proper utilization of water is quite important for future. Intensive cultivation as a result of introduction of high yielding varieties in the mid 1960's required higher energy inputs and better management practices. Land preparation, harvesting, threshing and irrigation are the practices, which consume most of the energy used in agriculture.

Agriculture, with its dependent sectors, is undoubtedly the largest livelihood provider in India, more so in the vast rural areas. Agriculture and its allied activities in India have observed a green revolution, a white revolution, a yellow revolution and a blue revolution and all these are possible due to continuous efforts of researchers to develop new varieties with high yield and better adaptation power.

Factors affecting agriculture:

Different factors affecting agriculture are as follows:

- 1. Climate.** Climate plays a main role in agriculture. For proper growth of Plants sufficient heat and moisture are required. Plant growth is not possible in regions having maximum temperature of less than 10°C while a better vegetation is found in regions, where temperature is high throughout the year. Along with temperature plant growth is not possible in water deficient areas except with irrigation. The moisture requirements varies for different plants. In regions where temperature is high, plants require more moisture for their growth on the other hand, in the regions where summers are cool, winds are not dry, low rainfall is sufficient.
- 2. Soil:** Soil is another important physical factor affecting agriculture. In India different type of soils exist in respect of physical and chemical composition like loamy, sandy, clayey etc. The chemical composition of the soil determines its productivity which accounts for micronutrients as well as macronutrients present in it.
- 3. Topography:** Topography affects agriculture as it has direct relation to soil erosion, tillage and transportation facilities. Use of machinery in agriculture depends totally on the

topography of land. On rough, hilly lands, the use of agricultural machinery is impossible which affects productivity.

- 4. Access to quality seeds:** Three varieties of seeds commonly used in agriculture are (i) farm-produced seeds (ii) commercially produced and certified varieties seeds and (iii) genetically modified and hybrid seeds.

Out of these about 30%-35% of the total seeds available are produced by private and public sector companies. These varieties are too costly for small farmers to afford, thus disincentivising them from purchasing these varieties.[2] The Economic Survey 2015-16 report has pointed bringing in more companies into the seeds production, improving availability in the market and also reduction in prices.

- 5. Agricultural Pricing:**

Procurement of agricultural commodities is the purchase of agriculture products by the governments. In India, FCI is responsible for the purchase, storage, movement, distribution and sale of all agricultural products.[9] MSPs for 22 crops are fixed by the central government in favour to provide remunerative prices to farmers. Since procurement mainly focusses on wheat and rice, so create attention of farmers on the cultivation of these crops over other crops. [3]

- 6. Agricultural markets**

State Agricultural Produce Marketing Committee (APMC) laws regulate agricultural markets in the India. [4] Under these Acts, farmers have to sell their products at state-owned mandis. Even in 2003, the central government had released a Model APMC Act, to be enacted by states.[14] The Model Act (i) provides selling of produce through contract farming, (ii) permits any individual to establish agricultural markets, (iii) leaves a single market fee on the sale, and (iv) replaces licences with registration of market agencies. In India 18 states and union territories have already implemented the Model Act.[5].The Economic Survey 2014-15 recommended that a National Agricultural Market (NAM) should be there to provide a national electronic platform to the farmers for their products.[8]

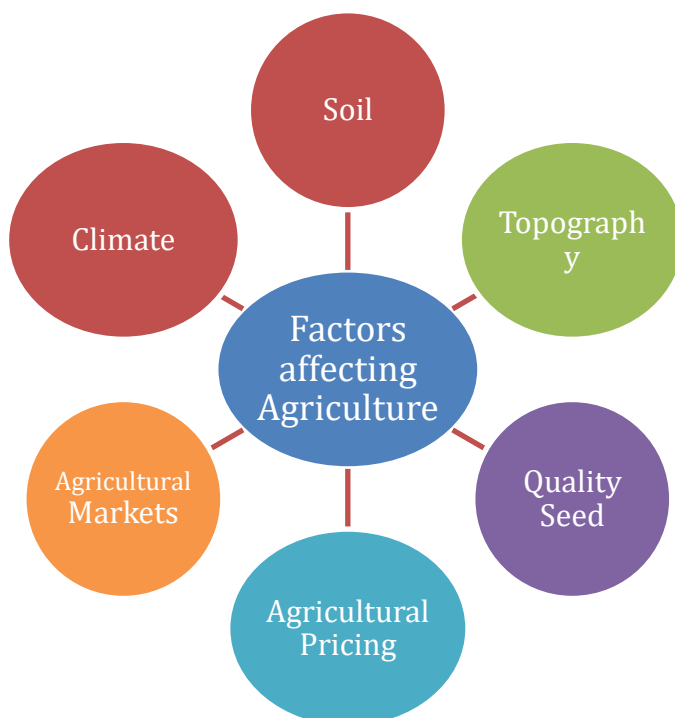


Figure 1: Factors affecting Agriculture

Role of agriculture in Indian economy

The nationwide lockdown from march, 2020 to prevent the spread of the COVID-19 deadly virus in India resulted in complete halt to all economic activity. In quarterly GDP data released for the June 2020, most sectors in the economy are in sink, but the agriculture sector is the only one who has risen to become a hope. All the other sectors involved in India's GDP were in the deficit and resulted in economy collapsing by a staggering value of 23.9%. With all activities coming to a rest due to the lockdown except for essential services, only the agriculture sector is the one that alters the trend.

Lockdown arose various difficulties to the Indian agriculture system at initial time which includes unavailability of labour, equipment, supply chains breakage and short fragmented demands but In the long term, this pandemic creates opportunities for positive changes in the agriculture, by building strong supply chains and the development of agriculture areas in rural as well as semi-urban areas.

Records of Monthly exports showed that the export of agricultural products got affected in March 2020 and greatly in April. Even production of agricultural products have increased in

April 2020 and after that Agricultural exports get back started in May and June months and shows improvement than the past years records.

According to experts, Uttar Pradesh, Bihar, West Bengal, Gujarat, and Rajasthan are the major producer states from where most of the grains are exported. These states are the major producer of wheat and rice. Even the government is buying grains at the MSP rate for export.

Experts from various organisations like Indian Council for Research on International Economic Relations, agricultural trade policy and food security, stated that the positive shift in growth of rabi crops in Q1 2020-21, when the crops enters the market, is due to low Q1 rate last year which creates base effect, agricultural exports have elevated in the first quarter sharply where wheat, rice, sugar have surplus the curve and food inflation was high in the quarter initiation. Records of the last three years till 2018-19 clearly shows that average Q1 growth rate decrease from 4.1% to 3% in 2019-20 and now grows to 3.4%. From 2013-2019 growth in livestock is at a rate of 8% and 11% in fisheries at the same duration which is higher than the growth observed in the crops.

Growth in agriculture is reported due to joint efforts of central and state government (MHA) by keeping it outside the guidelines of lockdown along with helping in rabi harvests and procurement operations. Monsoons remained proper during this kharif season resulting to normal sowing process and thus, build up faith among the farmers. Even all associated sectors also shows magnificent growth, for the last few years, more than 300 million tonnes production that exceeds the cereals production, even significant growth is observed in the livestock, dairying and fisheries sub-sectors.

In the present Kharif season, a remarkable increase of 5.71% in sowing has been noticed. The monsoons were really good enough for crops. The RBI has agreed that agriculture sector as the hopeful prospect in the desolate economic conditions. Agriculture sector is the one which is dealing with the Covid-19 era with flexibility. Approximate 25-30 million people including both rural and urban areas lost jobs under the MSME sector are looking to work under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Under this scheme, the work demand has raised up by 38%. It proves that the non-agricultural sectors of the rural economy are not generating enough work and even forcing people to shift to work under this scheme.

Another reason that favour the rural economy during this pandemic is procurement of wheat by government at massive level. The government purchased cereals directly from the farmers through the Food Corporation of India. During this year, a total 388.81 lakh tonnes of wheat is procured directly from the farmers with an increase of 13.9% than the last year. Hence, wheat farmers are benefitted during this pandemic.

In July it is an ample evidence of comeback in agriculture as tractor sale increased by 38.5 per cent showing that farmers are expending more on agriculture, not only on basic demands but also on large equipments like tractors.

The RBI records for agriculture in 2019-20 found a real GVA growth of 4.0 per cent which was due to the enhanced food grain output.

In 2019-20 agriculture shares 15.2 per cent of the total economic growth and established a new record in agriculture sector even more than the industrial sector's contribution that was 4.7 per cent only.

Several records of agriculture improvement are noted as per various reports:

- ✓ Indian agricultural and associated imports during 2019-20 were 20.64 billion dollars, and therefore the figures for 2020-21 are 20.67 billion dollar. Even though COVID-19, the value of trade agriculture has enhanced by 42.16% from 14.51 billion dollar to 20.58 billion dollar.
- ✓ Except plantation and marine products, for other agriculture products the remarkable growth i.e. 28.36% with exports of 29.81 billion dollar is observed in 2020-21 that is high in comparison to 23.23 billion dollar in 2019-20. India is benefitted due to elevated demand for cereals during the COVID duration.
- ✓ Remarkable increase has been recorded mainly in export of cereals with non-basmati rice growing to 4794.54 million dollar and wheat to 549.16 million dollar. In Additional agricultural products, marked enhancement is reported in 2020-21 in comparison to 2019-20, were oil meals 1575.34 million dollar, sugar 2789.97 million dollar, raw cotton 1897.20 dollar, fresh vegetables 721.47 million dollar and vegetable oils with 602.77 million dollar.

- ✓ The maximum export of Indian agriculture products occurs in USA, China, Bangladesh, UAE, Vietnam, Saudi Arabia, Indonesia, Nepal, Iran and Malaysia. Exports to most of these markets have recorded growth, with the highest growth for Indonesia (102.42%), Bangladesh (95.93%) and Nepal (50.49%).
- ✓ Export of different spices having medicinal values like pepper, ginger, cinnamon, cardamom, turmeric, saffron etc., has also grown. During 2020-21, export of pepper increased by 28.72% to USD 1269.38 million; cinnamon by 64.47% to USD 11.25 million; nutmeg, mace and cardamom by 132.03% (USD 189.34 million vs USD 81.60 million); and ginger, saffron, turmeric, thyme, bay leaves etc. by 35.44% to USD 570.63 million. Export of spices reached the highest level upto now of around USD 4 billion during 2020-2021[8].
- ✓ In India, Exports have initiated from several parts. Export of vegetables and mangoes from Varanasi and black Rice from Chandauli, oranges from Nagpur, banana from Theni and Ananthpur, mango from Lucknow etc[11] which directly benefits farmers of that area.. Despite the lockdown, export of fresh horticulture produces took place by multimodal mode and consignments were shipped by air and sea to destinations.
- ✓ Even Cereal exports of rice to Timor-Leste, Puerto Rico, Brazil, for wheat to Yemen, Indonesia, Bhutan take place for the first time.
- ✓ India mainly exports rice, spices, raw fruits, vegetables and sugar to GCC countries. Exports of non-basmati rice to GCC increased by 26.01% in 2020-21, Spices grew by 52.39% and sugar by 50.88. Overall agriculture exports to GCC countries increase by 7.15%.

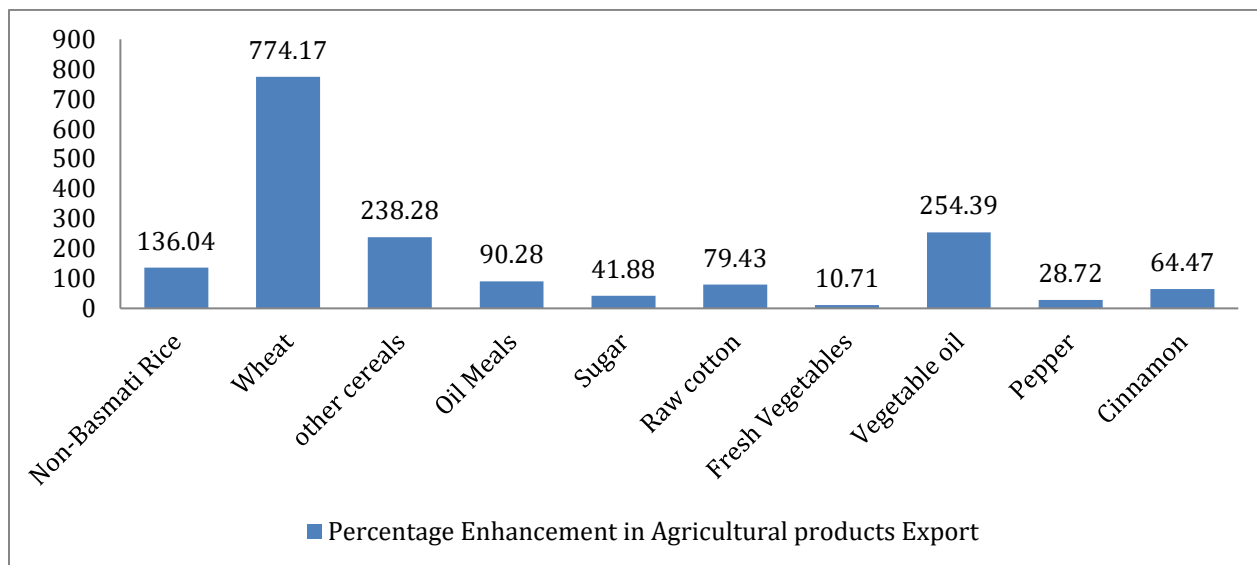


Figure 2:

Other Sectors Affected during COVID-19

Insurance sector of India could also face the claims of covid-19 up to billions of dollar in coming months as second wave of corona mix new death records daily. General insurance council (GIC) reported that 10.07 lakh (1million) SOF coronavirus registered that cost 14,738 crores(\$ 2 billion) until 7th April 2021 . Out of these 8.6 lakh claims with worth of 7,907 crores have settled.

Purchasing managers index (PMI) which is an economic indicator of business activities published by Markit Limited. Index is is servey- based measure in manufacturing and services sector. The data released by Markit limited showed the decline in PMI for services sector to 54 in April from 54.6 in March. PMI if figure 50 shows expansion and below 50 indicates contraction in growth. PMI declined to manufacturing also from 57.5 in February 2021 to 55.4 in March 2021. In April there was slight improvement to 55.5.

Tourism sector is also the one of the major industries accounting about 6.23 % of India's GDP and 8.78 % of population get employment for it . Tourism head to earn about 275.5 billion dollars profit in fiscal 2018 with 9.4 % yearly growth. Guides, vehicle drivers ,restaurants, shops ,tour operators, hotels are the facilities related to tourism directly or indirectly. These are hit hard by the corona pandemic. The National Restaurant association of

India (NARI) reported that almost 40% of restaurants in country have closed down since 2020 (15).The restaurant industry was extremely hopeful on budget that would ease their financial situation with relief packages, relaxation of certain taxations, direct cash benefits and handing out interest free loans. However govt. turned a blind eye to almost all demand and leaving this industries to fend for itself.

The automobile sector is hit by this endemic like never before. Automobile industries suffered by 2300 crore loss per day and approximate 3.45 lakh job losses. Approximate 18 to 20% decline in major original equipment manufacturers (OEM) due to less demand and decrease in sale of vehicles.

Education sector is the least counted sector that is affected during this pandemic. But all available indicators shows that it will be severe because all education sectors were closed during lockdown .Alternative online mode of study is not accessible to all students due to unavailability of technical devices and network. According to National sample survey(NSS)report 2017,only 25% of urban and 6% of rural households had access of computer .Only 17% of rural and 42 % of urban household have internet facilities. Definitely data –enabled cell phones have increased from last 4 years but many poor and especially rural areas are still suffering form network issues and cell phones availability.According to survey conducted by NCERT, Azim Premji Foundation ,Oxfan and ASER 27% to 60% students are still unable to join online classes. Indian education sector accounts for USD 101.1 billion which is further differentiated into INR993 billion in the education sector and INR30 billion in the skill development sector is spend by government. Training provided by Skill institutes of India is more than 10 million annually to the urban and rural labour class, but due to lockdown it decrease to 10-15%.It will increase unemployment.

Conclusion:

India is a leading country in Agriculture output from very past due to its favourable geographical conditions for plant growth and diversity. Different countries are dependent on agriculture exports from India for various materials like wheat, rice, spices, oils, vegetables,sugar, hard seed grains, spices and condiments, herbal drugs, dry fruits, sugar, pulses, beverages etc. which plays a significant role in Indian economy. Along with it many sectors like textiles, corporate, petroleum, construction , mining, electricity, gas, water

supply, service sectors occupies major place in economy development. From last year we all noticed a huge drop in Indian economy due to great havoc created by COVID-19. Some of the major sectors like insurance, health, tourism, automobiles, education, construction etc. are badly affected and their GDP count shrink in this duration. At this time when all sectors are diminishing, only agriculture sector is arise as a hope by showing positive growth. It shares 15.2% of overall economic growth in 2020-21 and set a record. Agriculture export increase during this period and even cereals export started now to some countries like Timor-Leste, Puerto Rico, Brazil, etc. This enhancement is possible due to collective efforts of Farmers as well as Government. Farmers increase their land cover for cultivation due to good monsoon even in this drastic situation when labour is not available for harvesting. Even the government helped the farmers by keeping agriculture outside lockdown restrictions, procurement of rabi harvest at MSP values, provide jobs to rural population under MANREGAS, subsidy on machinery which results in a positive shift in agriculture. In future the shares of agriculture may increase at a very fast rate in presence of suitable policies for farmers and good marketing organisation where farmers can sell their products easily with cost effectiveness.

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